

**REMARKS**

The present amendments and remarks are in response to the Final Office Action of March 02, 2005. Claims 11, 12, and 24-26 are currently pending.

Reconsideration of the application is respectfully requested in view of the following responsive remarks. For the Examiner's convenience and reference, the Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

In the Office Action, the following rejections were made:

- (1) claims 24 and 26 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement; and
- (2) claims 11, 12, and 24-26 were rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, as obvious over U.S. Pat. No. 4,795,794 (hereinafter "Winnik").

**Rejection under 35 U.S.C. 112, first paragraph**

The Examiner has rejected claims 24 and 26 under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. The Examiner has stated that the limitations of claims 24 and 26, namely that the convertible moiety of the particles is in hydrophilic or in a hydrophobic form in the ink composition, are not supported by the instant specification. The Applicant respectfully disagrees with this assertion. Claim 24 imposes a limitation on claim 11 that the convertible moiety of the amphipathic polymer particles be in a hydrophilic form in the ink composition. Claim 26 imposes a similar limitation on claim 12. Support for these amendments can be found, *inter alia*, on page 6, lines 15-25 of the application as filed. This paragraph of the specification discloses that after polymerization, the acid group side chains of the convertible monomers may be converted to anionic salt form by adjusting the pH of the solution (lines 22-24). This passage clearly describes the conversion of the convertible moiety of the amphipathic particles from a hydrophobic state to a hydrophilic state, thus describing such a particle in a hydrophilic form. Furthermore, page 2, lines 22-33 describe the amphipathic polymeric particles as being "ideal for inclusion in any ink marketed for ink jet printers," thus providing one skilled in the art with the understanding that the convertible moiety of the amphipathic particles can be in a hydrophilic form and included in an ink composition. Page 10, lines 8-10 also provides support for the inclusion of the amphipathic polymeric particles (the polymeric dispersant/binder) produced by side chain conversion or ATRP methods into an ink composition. As such, the Applicant respectfully requests that this rejection be withdrawn.

**Rejections under 35 U.S.C. 102(b) and obviousness in the alternative**

Before discussing the rejections under 35 U.S.C. 102(b), it is thought proper to briefly state what is required to sustain such a rejection. It is well settled that "[a] claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). In order to establish anticipation under 35 U.S.C. §102, all elements of the claim must be found in a single reference. *Hybritech, Inc. v. Monoclonal Antibodies*,

*Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986), *cert. denied* 107 S.Ct. 1606 (1987). In particular, as pointed out by the court in *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1981), *cert denied*, 469 U.S. 851 (1984), "anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference." "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.* 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Additionally, before discussing the obviousness rejection herein, it is thought proper to briefly state what is required to sustain such a rejection. The issue under § 103 is whether the PTO has stated a case of *prima facie* obviousness. According to the MPEP § 2142, the Examiner has the burden and must establish a case of *prima facie* obviousness by showing some motivation in a prior art reference to modify that reference, or combine that reference with multiple references, to teach all the claim limitations in the instant application. Applicants respectfully assert the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness in this rejection.

#### Rejections over Winnik

The Examiner has rejected claims 11, 12, and 24-26 under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, as obvious over Winnik. Winnik discloses a process for affecting the preparation of color particles. More specifically, Winnik discloses a process for preparation of toner particles. Winnik further discloses a polymerization process of two or more monomers (col 3, lines 47-54), wherein a dye is covalently attached to the resulting polymer backbone (col 4, lines 40-42). Furthermore, Winnik describes the immobilization of the dye moiety in the polymer particle as an important achievement that prevents toxicological problems (col 6, lines 46-51). Thus, the covalent binding of the dye to the polymer particle is a very important aspect to Winnik.

In contrast, claim 11 contains limitations to a pigment colorant and amphipathic polymer particles prepared by the disclosed process. The process includes *inter alia*, admixing an aqueous carrier, an unsaturated monomer containing a hydrophobic moiety, an unsaturated monomer containing a convertible moiety in hydrophobic form, and a second surfactant to form an emulsion. The emulsion is

then polymerized. All the elements contained in claim 11 are not taught by Winnik, both in the resulting amphipathic polymer particles and in the ink composition. For example, the pigment colorant and the amphipathic polymer particles are distinct particles in claim 11, whereas Winnik creates a single particle by combining a dye (which is not a pigment) with a polymer. Additionally, the pigment is claimed as a separate element from the amphipathic polymer particles, thus further indicating the distinct nature of the amphipathic polymer particles. This element is contrary to the immobilized dye moieties of Winnik. Reconsideration on these grounds is respectfully requested.

As another example of a limitation not taught by Winnik, the product resulting from the process of claim 11 is distinct from that produced by the prior art. The Examiner argues that the processes of Winnik and the claimed invention are the same, and thus the resulting polymeric particles would be the same. The Applicant respectfully disagrees. The Examiner points to butyl methacrylate as a convertible monomer that reads on claim 11. Winnik, however, does not teach the admixing of a hydrophobic monomer and a convertible monomer in its hydrophobic form, as pH is not disclosed in this example. As such, the burden is on the Examiner to show that Winnik teaches the addition of a convertible monomer in its hydrophobic form. Given the disclosure in this reference, the Applicant's view is that one skilled in the art would understand from Winnik that the hydrophobic monomer is combined with a monomer in its hydrophilic form. Moreover, this mixture, when polymerized, would result in polymer particles that are vastly different from the amphipathic polymer particles of the process of claim 11. When two different hydrophobic monomers are admixed in the hydrophobic phase of an emulsion, a more uniform mixing occurs, and the ratio of the different monomers is translated effectively to the polymeric product. In other words, both hydrophobic monomers mix more thoroughly and are contained within the hydrophobic phase prior to polymerization. Conversely, when a hydrophobic monomer is admixed with a hydrophilic monomer in an emulsion, less-uniform mixing occurs, and the ratio of the different monomers is not translated effectively to the polymeric product. This is due in part to the movement of the hydrophilic monomer into the aqueous phase of the emulsion, and the separate clumping of hydrophilic and hydrophobic monomers in the emulsion. As a result, the ratio of hydrophilic monomers in contact with hydrophobic monomers during

polymerization is reduced from the ratio as initially included in the emulsion, thus producing polymeric particles with vastly different monomer ratios and configurations compared to those prepared in accordance with the present invention. As such, Winnik would produce polymer particles with regions of hydrophobic clumping and regions of hydrophilic clumping. The process of claim 11, on the other hand, would result in amphipathic polymer particles having a more uniform distribution, thus the structure would be different from Winnik. Reconsideration on these grounds is respectfully requested.

Turning to claim 12, the above argument regarding the differences between the polymer particles of Winnik and the amphipathic polymer particles of the present invention apply. Additionally, claim 12 has been amended to more clearly indicate that the first surfactant of the ink composition is different from the second surfactant of the process to prepare the amphipathic polymer particles. Reconsideration on these grounds is respectfully requested.

Accordingly, the instantly claimed invention is not anticipated by the cited reference, as Winnik lacks at least one element of the instantly claimed invention. Applicant submits that this rejection is improper, and respectfully requests that it be withdrawn.

Because claims 24-26 depend from claims 11 and 12, and are thus considered to be narrower in scope, they will not be discussed herein, and are assumed to be allowable along with claims from which they depend.

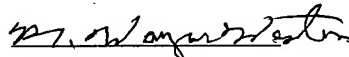
**CONCLUSION**

In view of the foregoing, Applicant believes that claims 11, 12, and 24-26 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Susan E. Heminger at (650) 236-2738 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 2<sup>nd</sup> day of June, 2005.

Respectfully submitted,



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